

Mars Exploration Science Monthly Newsletter

A publication of the Mars Program Office and the Mars Exploration Program Analysis Group (MEPAG)

August 2015

Mars Science News

3rd Announcement for the 2nd Landing Site Workshop for the Mars 2020 Rover

August 4-6, 2015

DoubleTree, Monrovia, CA

The Second Landing Site Workshop for the 2020 Mars Rover mission will be held at the Doubletree Hotel, Arcadia, CA, on August 4-6, 2015. All members of the scientific community are encouraged to participate in the Mars 2020 site selection process. The primary goal of the second workshop will be to evaluate the ~30 candidate landing sites that emerged from the first workshop as well as any new sites proposed. The full text of the Third Announcement, agenda, remote connection information, and workshop logistics have been posted at: <http://marsnext.jpl.nasa.gov/>.

Final report of MEPAG HSO-SAG has been posted

The final report of the Scientific Objectives for the Human Exploration of Mars Science Analysis Group (MEPAG HSO-SAG), "Candidate Scientific Objectives for the Human Exploration of Mars, and Implications for the Identification of Martian Exploration Zones" is now posted on the MEPAG website:

<http://mepag.jpl.nasa.gov/reports/HSO%20summary%20presentation%20FINAL.pdf>

This SAG was tasked with preparing an update to the forecast of our state of scientific knowledge of Mars (as of 5-8 years ahead of a human mission to be launched in the mid-2030s), preparing an update to the analysis of the most efficient methods for using robots and humans to perform scientific fieldwork on Mars, and preparing an updated analysis of the options and priorities for scientific objectives that could be logically and productively assigned to recurring human missions to the Martian surface. An additional task, describing the criteria that could be used to identify science sites of interest for future human exploration, has feed directly into the science region of interest criteria for the First Landing Site/Exploration Zone Workshop for Human Missions to the surface of Mars (<http://www.hou.usra.edu/meetings/explorationzone2015/> - below).

2nd Announcement of the First Landing Site/Exploration Zone Workshop for Human Missions to the Surface of Mars

October 27-30, 2015

Lunar Planetary Institute (LPI), Houston TX

The purpose of this workshop is to identify and discuss candidate locations where humans could land, live and work on the martian surface. NASA hopes to engage scientists, technologists and experts in human exploration during the conference, fostering collaboration among the teams that will enable humans to explore Mars in the coming decades. Potential "Exploration Zones" will need to offer compelling science research while also providing resources that our astronauts can take advantage of during their pioneering of the Red Planet. First explorers will be limited to about 60 miles (100 km) of travel from their landing site due to life support and exploration technology requirements. The 2nd announcement provides the details on how to participate in the workshop. For More Information:

<http://www.nasa.gov/sites/default/files/atoms/files/second-landing-site-announcement.pdf>

<http://www.hou.usra.edu/meetings/explorationzone2015/>

Some Mars-relevant GSA sessions

Abstract submission deadline: August 11, 2015

GSA meeting: November 1-4, 2015 in Baltimore, MD

Abstracts are due August 11. <http://www.geosociety.org/meetings/2015/sessions/topical.asp>.

T132: Mineralogy of Diagenesis on Earth and Mars: In Honor of Nicolas J. Tosca, 2015 MSA Awardee

This session honoring Nick Tosca, winner of the 2015 MSA Award, will be devoted to recent experimental, theoretical, and observational advances in characterizing and interpreting the mineralogical relationships developed during aqueous diagenesis on both Earth and Mars.

T171. Exploring the Sedimentary Rock Record of Mars

This forum will discuss advances in the study of Mars' ancient sedimentary rock record and will explore implications for surface processes and paleoenvironmental settings of Early Mars. Contributions relating to the study of sedimentary rocks on Mars through the analysis of rover, orbiter, and meteorite data are welcomed and encouraged.

T177. When Water Meets Rock: Aqueous Alteration in the Solar System

On Earth reaction pathways of water-rock reactions can be observed directly, but elsewhere in the solar system we are often left with the mineralogical and geochemical products of these interactions to interpret the processes. For planetary aqueous environments, such as Mars, carbonaceous chondrites, and comets/asteroids, big picture questions include: (1) whether observed aqueous minerals formed at the surface or in the subsurface and under ambient or hydrothermal conditions and (2) the durations and volumes of liquid water involved. The goal is to explore how exciting new results from mineralogic and geochemical studies based on orbital and landed measurements integrate with field, laboratory, meteoritical, and modeling investigations that address aqueous processes on planetary bodies.

The G. K. Gilbert award session

This year's G. K. Gilbert awardee is Dr. Matt Golombek, from the Jet Propulsion Laboratory, and the session will focus on the topic of "Understanding Mars' geology, from orbiter to rover-based exploration." The session is focused on the expanded view of Martian surface geology afforded by mobile robotic platforms, including the Mars Pathfinder, Mars Exploration Rovers, and the Mars Science Laboratory missions. To submit to this session, please submit abstracts to the discipline pool and email the session co-chairs ([Debra Buczkowski](#) and [Devon Burr](#)) to let us know of your desire to present in the Gilbert session.

Travel Grant available for students with Mars-related interests, for 2nd International Planetary Caves Conference

Application due August 6, 2015 (abstract deadline)

Conference is October 20-23, 2015, in Flagstaff, AZ

The NASA Mars Program Office has announced that travel funding will be made available for up to three (3) undergraduate and graduate students who are U.S. citizens or legal residents, with Mars-related interests, to attend this workshop. The student travel grants are competitive and will reimburse travel expenses; awardees will also have the registration fee waived. Applications are due August 6, 2015 (same as the abstract deadline). NASA Headquarters will make the selections and students will be notified by the start of September. See the [MEPAG Student Opportunities](#) page for more information and the application. Questions about this program should be directed to Dr. Serina Diniega (Serina.Diniega@jpl.nasa.gov).

Near-term Due Dates (next three months)

Due	Project
August 5	AGU Fall Meeting Abstract deadline
August 6	2nd International Planetary Caves Conference Abstract and Student Travel Grant Application deadline
August 11	Geological Society of America Annual Meeting Abstract deadline
August 25	47th Meeting of the American Astronomical Society Division for Planetary Sciences (DPS 2015) Abstract deadline
August 25	First Landing Site/Exploration Zone Workshop for Human Missions to the Surface of Mars Abstract deadline
September 15	Missions to Habitable Worlds Registration deadline
September 28	Geological Society of America Annual Meeting Registration deadline

A note about “conferences” and this calendar of events

- “Conference” organizers: if we do not have it listed and you know this information, please forward the NCTS# (along with forecasting deadline, if known) to Meredith Cosby.
- Forecasters: when no deadline is noted, it is usually 90days in advance — sometimes further in advance if the conference is “Heavily Attended.” Also, please do not assume our noting of NCTS# is complete. If you are unsure if an event is a conference or not, or when the forecasting deadline may be, please consult with your NASA Center conference forecasting/travel unit.

Upcoming Conferences and Workshops

Third Quarter, 2015

	August 4-6, 2015 Pasadena, CA, USA	2nd Landing Site Workshop for the Mars 2020 Rover http://marsnext.jpl.nasa.gov/ , NCTS# 22464-15
	August 10-12, 2015 Pasadena, CA, USA	27th Annual Planetary Science Summer School http://pscischool.jpl.nasa.gov
	August 12-14, 2015 Flagstaff, AZ, USA	6th Planetary Crater Consortium www.planetarycraterconsortium.nau.edu/ , NCTS# 21792-15
	August 16-21, 2015 Prague, CZ	Goldschmidt 2015 http://goldschmidt.info/2015/
Updated	September 3, 2015 Pasadena, CA	Mars 2001 Odyssey PSG
	September 8-11, 2015 Moffett Field, CA, USA	Comparative Climates of Terrestrial Planets II http://cctp2.arc.nasa.gov/ , NCTS# 22053-15
	September 16-17, 2015 Irvine, CA, USA	NRC's Committee on Astrobiology and Planetary Science (CAPS)
	September 21-26, 2015 Freiberg, GERMANY	The Bridging the Gap III: Impact Cratering in Nature, Experiments and Modeling http://www.hou.usra.edu/meetings/gap2015/
	September 27-October 2, 2015 Nantes, FRANCE	European Planetary Science Congress http://www.epsc2015.eu/home.html , NCTS# 21623-15

Fourth Quarter, 2015

	October 6-9, 2015 Noordwijk, NETHERLANDS	European Astrobiology Network Association (EANA15) http://www.eana-net.eu/Conferences/EANA2015.html
	October 20-22, 2015 Columbia, MD	2015 Meeting of Lunar Exploration Analysis Group http://www.hou.usra.edu/meetings/leag2015/ , NCTS# 23063-16
	October 20-23, 2015 Flagstaff, AZ, USA	2nd International Planetary Caves Conference http://www.hou.usra.edu/meetings/2ndcaves2015/
	October 20-22, 2015 Noordwijk, NETHERLANDS	Third ExoMars 2018 Landing Site Selection Workshop http://exploration.esa.int/mars/55991-third-exomars-2018-landing-site-selection-workshop/
	October 27-29, 2015 Washington DC, USA	13th Meeting of the Venus Exploration Analysis Group http://www.lpi.usra.edu/vexag/meetings/upcoming/ , NCTS code #22676-16
New!	October 27-30, 2015 Houston, TX, USA	First Landing Site/Exploration Zone Workshop for Human Missions to the Surface of Mars http://www.hou.usra.edu/meetings/explorationzone2015/ , 23273-16
	October 28-29, 2015 Budapest, HUNGARY	Missions to Habitable Worlds http://life-origins2015.csfk.mta.hu/
	November 1-4, 2015 Baltimore, MD, USA	Geological Society of America Annual Meeting http://community.geosociety.org/gsa2015/home , NCTS# 22522-16
	November 8-13, 2015 National Harbor, MD, USA	47th Meeting of the American Astronomical Society Division for Planetary Sciences (DPS 2015) http://aas.org/meetings/dps47 , NCTS# 22069-16
	November 9-13, 2015 Foz do Iguacu, BRAZIL	2nd Symposium of the Committee on Space Research (COSPAR 2015): Water and Life in the Universe
	December 9-10, 2015 Noordwijk, NETHERLANDS	Mars Express Science Working Team Meeting
	December 14-18, 2015 San Francisco, CA, USA	AGU Fall Meeting http://fallmeeting.agu.org/2015/ , NCTS# 22185-16

First Quarter, 2016

	January 7, 2016	20-Day ExoMars Launch Period Opens
	March 4, 2016	20-Day Insight Launch Window Opens
	March 5-12, 2016 Big Sky, MT, USA	IEEE Aerospace Conference http://www.aeroconf.org/ , NCTS# 22854-16
	March 21-25, 2016 The Woodlands, TX, USA	Lunar and Planetary Science Conference (LPSC) http://www.hou.usra.edu/meetings/lpsc2016/ , 23351-16
	March 29-31, 2016 Washington DC, USA	NRC's Committee on Astrobiology and Planetary Science (CAPS)

Second Quarter, 2016

	April 4-8, 2016 Oxford, UK	International Venus Conference http://venus2016.uk/
New!	April 11-15, 2016 Orlando, FL, USA	ASCE Earth and Space 2016 Conference: 15th Biennial ASCE International Conference on Engineering, Science, Construction, and Operations in Challenging Environments http://earthspaceconf.mst.edu/ , 23397-16 Of particular interest -- Symposium 1: Granular Materials in Space Exploration, Symposium 2: Exploration and Utilization of Extraterrestrial Bodies
New!	April 12-15, 2016 Noordwijk, NETHERLANDS	Water in the Universe: From Clouds to Oceans http://www.congrexprojects.com/2016-events/16a06
	May 24-25, 2016 Oxford, UK	iCubeSat 2016, the 5th Interplanetary CubeSat Workshop http://icubesat.org/

Third-Fourth Quarters, 2016

	July 30-August 7, 2016 Istanbul, TURKEY	41st Scientific Assembly of the Committee on Space Research (COSPAR 2016) and Associated Events http://www.cospar-assembly.org
	August 7-12, 2016 Berlin, GERMANY	Annual Meetings of the Meteoritical Society
	September 5-9, 2016 Reykjavik, ICELAND	6th International Conference on Mars Polar Science and Exploration
	September 14-15, 2016 Irvine, CA, USA	NRC's Committee on Astrobiology and Planetary Science (CAPS)
	September 28, 2016	Insight Arrival at Mars
	October 16-21, 2016 Pasadena, CA, USA	Joint DPS-EPSC Meeting
	October 19, 2016	ExoMars 2016 (TGO and EDM) Arrival at Mars

Seasons on Mars

	MY33	MY34	MY35
Start of Northern Spring / L_s 0	6/18/2015	5/05/2017	3/23/2019
Start of Northern Summer / L_s 90	1/03/2016	11/20/2017	10/08/2019
Start of Northern Autumn / L_s 180	7/04/2016	5/22/2018	4/08/2020
Start of Northern Winter / L_s 270	11/28/2016	10/16/2018	9/02/2020

Special holidays to consider when scheduling conferences/workshops/meetings

Good Friday	4/3/2015	3/25/2016	4/14/2017	3/30/2018
Rosh Hashanah	9/14/2015	9/16/2016	9/20/2017	9/10/2018
Yom Kippur	9/23/2015	9/25/2016	9/29/2017	9/19/2018

(Note that Jewish holidays start at sundown the previous evening)

Thanksgiving Day, Canada	10/12/2015	10/8/2016	10/9/2017	10/8/2018
Thanksgiving Day, U.S.	11/26/2015	11/22/2016	11/23/2017	11/22/2018
Christmas Day	12/25/2015	12/25/2016	12/25/2017	12/25/2018

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Please send your Mars Community Announcements and calendar items for inclusion in next month's newsletter to:

Meredith Cosby at

Meredith.A.Cosby@jpl.nasa.gov, 818-354-0226.

All announcements listed in this newsletter will be posted on the MEPAG website, available at:

<http://mepag.jpl.nasa.gov>

- If you wish to withdraw from the electronic mailing list this newsletter is sent out to, please send an email from your email account to mepag-removesignup@jpl.nasa.gov.
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